InfoThink Technology CO., LTD.
5F., No.133, Xinhu 1st Rd., Neihu Dist., Taipei City 114-94, Taiwan (R.O.C.)
TEL：(02)2790-1790 FAX：(02)2790-1770

規格承認書

SPECIFICATION FOR APPROVAL

Customer:	Getac Technology Corp.
Brand Name:	Getac
Description:	A140G2 PN7462 NFC Module
Version:	
Our Parts Number:	179-90010408A0-9
Customer Parts Number:	442140300001
Made by:	InfoThink Technology
Date:	May, 05, 2019
Prepared：	Robert Yang
Approved：	Roman Chang

Customer’s Checked：

Customer’s Approved：

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1. General Description

The A140G2 NFC module is a highly integrated transceiver module for contactless reader/writer communication at 13.56 MHz.

A dedicated Flash code is implemented to handle different RF protocols by an integrated microcontroller. The system host controller communicates with the A140G2 NFC module by using the USB link.

The protocol between the host controller and the A140G2 NFC module, on top of this physical link is the CCID protocol

2. Features

- High RF output power frontend IC for transfer speed up to 848 kbit/s
- NFC IP1 and NFC IP2 support
- Full NFC tag support (type 1, type 2, type 3, type 4A and type 4B, type 5)
- P2P active and passive, target and initiator
- Card emulation ISO14443 type A
- ISO/IEC 14443 type A and type B
- MIFARE classic card
- ISO/IEC 15693, and ISO/IEC 18000-3 mode 3
- Low power card detection
- Dynamic Power Control (DPC) support
- Compliance with EMV contactless protocol specification
- Compliance with NFC standards

3. Support the following operating modes:

- ISO/IEC 14443-A and B, MIFARE
- JIS X 6319-4 (comparable with FeliCa scheme)
- ISO/IEC 15693, ICODE, ISO/IEC 18000-3 mode 3
- NFC protocols - tag reader/writer, P2P
- ISO/IEC 14443- type A card emulation
- EMVCo compliance

4. System Requirements

- Desktop or notebook computer with a working USB port
- One of the following Operating Systems：
  - Windows® 2000
  - Windows® 2003 Server x32/x64
  - Windows® 2008 Server x32/x64
  - Windows Vista™ x32/x64
  - Windows® 7 x32/x64
  - Windows® 10 x32/x64

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- Support by the following OS through the PCSC-Lite driver：
  - GNU/Linux using libusb 1.0.x and later
  - Mac OS Leopard (1.5.6 and newer)
  - Mac OS Snow Leopard (1.6.X)
  - Solaris
  - FreeBSD

5. General Specifications

- Bus-powered - +5V +/- 5%, 500mA

- Average Power Consumption
  - Standby Mode: 0.12Watt
  - Active/Read Card Mode: 0.24 Watt

- Operational environment
  - Operating Temperature: -10°~60°
  - Operating Humidity: 10%~90%
  - Storage Temperature: -20°~70°
  - Storage Humidity: 10%~90%

6. Connector Pin List

ACES_50552-00841-001	
Pin No.	Pin Name
1	VBUS +5V
2	VBUS +5V
3	NC
4	USB DP
5	USB DM
6	DOWNLOAD_MODE
7	GND
8	GND

FCC Statement
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance.

ISED Statement
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The transmitter module may not be co-located with any other transmitter or antenna.
Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

ISED Radiation Exposure Statement

The products are compliant with SAR for general population/uncontrolled exposure limits in IC RSS-102 and has been tested in accordance with the measurement methods and procedures specified in IEEE 1528. Maintain at least 0mm distance for body-warn condition.

Le produit est le respect de SAR pour la population générale / limites d'exposition incontrôlée de CNR-102 et a été testé en conformité avec les méthodes et procédures de mesure spécifiées dans la norme IEEE 1528. Maintenir au moins 0mm à distance pour la condition physique-garde.

NCC Statement

1. 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
2. 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
3. 本模組於取得認證後將依規定於模組本體標示審驗合格標籤，並要求平台廠商於平台上標示「本產品內含射頻模組CC XX xx LP yyy Z z」。
4. 「本公司於說明書中提供所有必要資訊以指導使用者/安裝者正確的安裝及操作」。

This module is intended for OEM integrators under the following conditions:

1. List of applicable rules: This module is certified pursuant to Part 15 rules sections(15.225) and RSS-210.

2. Antennas: This module has been approved to operate with the antenna types listed below,

Frequency Band	Antenna Type
13.56MHz	Loop

3.The OEM integrator is still responsible for
a)ensuring that the end-user has no manual instructions to remove or install module
b)the FCC/ISED compliance requirement of the end product, which integrates this module.

4. Information on test modes and additional testing requirements

This module is restricted to integration into hosts for indoor use only.

This module has been approved under host configuration.

The separate approval is required for all other operating configurations, including different antenna configurations

The information on how to configure test modes for host product evaluation for different operational conditions for a stand-alone modular transmitter in a host, , versus with multiple, simultaneously transmitting modules or other transmitters in a host can be found at KDB Publication 996369 D04

5. Additional testing, Part 15 Subpart B disclaimer
Appropriate measurements (e.g. 15 B compliance) and if applicable additional equipment authorizations (e.g. SDoC) of the host product to be addressed by the integrator/manufacturer. This module is only FCC authorized for the specific rules listed on the grant, and the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host product as being Part 15 Subpart B compliant.

6. Limited module procedures: This module is limited to host model number: A140, A140G2;

Brand: Getac

7. Label and compliance information

Label of the end product:

FCC:

The host product must be labeled in a visible area with the following " Contains TX FCC ID: QYLPN7462A".

The end product shall bear the following 15.19 statement: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

ISED:

The final end product must be labeled in a visible area with the following: “Contains transmitter module IC: 10301A-PN7462A”.

NCC:

本模組於取得認證後將依規定於模組本體標示審驗合格標籤，並要求平台廠商於平台上標示「本產品內含射頻模組CC XX xx LP yyy Z z」

The user manual of the end product should include:

FCC:

1. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

2. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

4.This module is restricted to installation in products for use only in portable applications.

The host product manufacturer must provide following statement in end-product manuals.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance.

ISED:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:

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